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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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David F. Tobias

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EXAMINER

CONNOLLY, MARK A

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/876,291	TOBIAS ET AL.	
	Examiner	Art Unit	
	Mark Connolly	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 14-19, 21-24 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-19, 21-24 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-10, 14-19, 21-24 and 26-28 have been presented for examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1-10, 14-19, 21-24 and 26-28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 1 is objected to because of the following informalities: Line 5 should be corrected to read "determining utilization of the integrated circuit; *and*". Appropriate correction is required.
4. Claim 16 is objected to because of the following informalities: Claim 16 is dependent on canceled claim 11. For examination purposes, claim 16 has been interpreted as dependent on independent claim 10. Appropriate correction is required.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 24 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In particular, claim 24 defines a "computer readable medium" as comprising "network, wireline, wireless or other communications medium." The invention must be tangible and for examination purposes the "computer readable medium" has been interpreted as comprising only the storage mediums listed in the claim.

Claim Rejections - 35 USC § 102

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7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2, 4-5, 8-19, 21-24 and 26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Hetzler¹ US Pat No 5954820.

9. Referring to claim 1, Hetzler teaches the method of managing power consumption comprising:

- a. determining utilization of the integrated circuit [col. 3 lines 10-11, 16-19 and col. 6 lines 41-64].
- b. each time the computing system determines that a higher performance state is required based on the determined utilization while in each of the other performance states, changing to a predetermined performance state, skipping all intermediate performance states between a current performance state and the predetermined performance state [Fig. 8 and col. 6 lines 41-64].

In summary, Hetzler teaches that utilization of controller 56 is dependent upon utilization, or access, of the CD-ROM drive itself. For example, if the utilization of the CD-ROM drive is low enough to place the drive into a STANDBY state, it is known that the utilization of the controller 56 will be minimal thus allowing the controller to be placed into a lower power/performance mode due to an “additional reduction in power to spindle control electronics portion of controller 56” [col. 6 lines 53-55]. Hetzler further teaches a SLEEP mode

¹ As cited in the previous office actions.

wherein only a portion of controller 56 which is required to respond to a sleep recovery command is powered, thus demonstrating an even lower power/performance state than when in the STANDBY state [col. 6 lines 58-64]. Therefore, it should be apparent that there exists different power/performance modes for controller 56 dependent upon the power/performance mode of the CD-ROM drive. Finally it should be apparent that when the CD-ROM jumps to the high power P0 state from either the lower power P1 or P2 state (as seen in Fig. 8), the power/performance mode of the controller 56 would also change accordingly.

10. Referring to claim 2, Hetzler teaches entering the maximum performance state as a predetermined performance state [fig. 8].

11. Referring to claims 4 and 5, Hetzler teaches comparing a utilization value to a first threshold to determine if a higher performance state is required and comparing the utilization value to a second threshold to determine if a lower performance state is required and always entering a next lower performance state as the next performance state [fig. 8 and col. 15 lines 30-38]. While in an intermediate power/performance mode, Hetzler teaches that the component will either enter an active state or another power/performance mode dependent upon the components utilization. Determining that the component is being accessed inherently suggests that the component will be utilized. Determining component utilization is interpreted as determining if component utilization exceeds a first threshold. Furthermore, Hetzler also teaches the ability to skip intermediate power modes [col. 3 lines 16-20].

12. Referring to claim 8, Hetzler teaches periodically determining utilization [col. 10 lines 13-21 and 27-30].

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13. Referring to claim 9, Hetzler teaches managing processor power [col. 25 lines 9-10 and 36-45].

14. Referring to claims 10, 15-19 and 21-23, these are rejected on the same basis as set forth hereinabove. Hetzler teaches the method and therefore teaches the system and computer program product performing the method.

15. Referring to claim 24, Hetzler teaches storing the instructions in main memory or on magnetic or optical storage [col. 25 lines 51-58].

16. Referring to claims 26-28, these are rejected on the same basis as set forth hereinabove.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hetzler as applied to claims 1-2, 4-5, 8-19, 21-24 and 26-28 above.

19. Referring to claims 2 and 3, applicant(s) numerous predetermined performance states are construed to be an admission that the criticality does not reside in which performance state is entered and thus obvious variations of one another. Hetzler teaches entering the maximum performance state as a predetermined performance state [fig. 8].

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20. Claims 6-7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hetzler as applied to claims 1-2, 4-5, 8-19, 21-24 and 26-28 above and further in view of Evoy US Pat No 5787294.

21. Referring to claims 6 and 7, although Hetzler teaches adjusting the power/performance state of a component such as a CPU as shown above, it is not explicitly taught that a power/performance state is lowered by reducing a voltage and/or frequency. In fact, Hetzler does not even explicitly teach how the power/performance *within a CPU* is actually accomplished. Evoy explicitly teaches a means for reducing power consumption by reducing a voltage and frequency to a processor [figs. 2-4 and abstract]. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the teachings of Evoy into the Hetzler system because it demonstrates how the power/performance state of a CPU is actually adjusted.

22. Referring to claim 14, this is rejected on the same basis as set forth hereinabove.

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Connolly whose telephone number is (571) 272-3666. The examiner can normally be reached on M-F 8AM-5PM (except every first Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on (571) 272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark Connolly
Examiner
Art Unit 2115

THOMAS C. LEE

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

mc

August 8, 2006